

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP Individual Permit Number 01-1719 Effective Date: November 1, 2013 Expiration Date: October 31, 2028

VIRGINIA WATER PROTECTION PERMIT ISSUED PURSUANT TO THE STATE WATER CONTROL LAW AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner, and in compliance with § 401 of the Clean Water Act as amended (33 USC 1341 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the State Water Control Board (board) has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards. The board finds that the effect of the impact, together with other existing or proposed impacts to surface waters, will not cause or contribute to a significant impairment to state waters or fish and wildlife resources.

Permittee:

Appomattox River Water Authority

Address:

21300 Chesdin Road, Petersburg, Virginia 23803

Activity Location:

The two raw water intakes are located on the Chesdin Reservoir, one adjacent to

the Brasfield Dam and one within in the embankment of the dam, Chesterfield

County, Virginia.

Activity Description: This permit authorizes the operation of a surface water withdrawal from two existing intakes located on the Chesdin Reservoir and the operation of the dam to provide instream flow downstream of the Brasfield Dam.

The permitted activity shall be in accordance with this Permit Cover Page, Part I - Special Conditions, and Part II - General Conditions.

Director, Division of Land Protection and Revitalization

Date

Part I – Special Conditions

A. Authorized Activities

- 1. This permit authorizes the operation of a surface water withdrawal from two existing intakes located on the Chesdin Reservoir.
- 2. Authorized activities shall be conducted as described in the Joint Permit Application dated October 30, 2012, and received November 6, 2012, and supplemental materials, revisions and clarifications received through August 19, 2013.
- 3. The permittee shall notify the DEQ of any additional impacts to surface waters, including wetlands; of any modifications of the intake structure; and of any change to the type of surface water impacts associated with this project. Any additional impacts, modifications, or changes shall be subject to individual permit review and/or modification of this permit.

B. Permit Term

- 1. This permit is valid for **fifteen (15) years** from the date of issuance. A new permit shall be necessary for the continuance of the authorized activities, including water withdrawals, or any permit requirement that has not been completed, including compensation provisions.
- 2. The permittee shall notify DEQ in writing at least 270 calendar days prior to the expiration of this permit if an extension of the permit term is required.

C. Standard Project Conditions

- 1. The activities authorized by this permit shall be executed in such a manner that any impacts to beneficial uses are minimized. As defined in § 62.1-10(b) of the Code, "beneficial use" means both instream and offstream uses. Instream beneficial uses include, but are not limited to, the protection of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation, and cultural and aesthetic values. Offstream beneficial uses include, but are not limited to, domestic (including public water supply), agricultural, electric power generation, commercial, and industrial uses. Public water supply uses for human consumption shall be considered the highest priority.
- 2. No activity shall substantially disrupt the movement of aquatic life indigenous to the water body, including those species that normally migrate through the area, unless the primary purpose of the activity is to impound water.
- 3. Flows downstream of the project area shall be maintained to protect all uses.
- 4. The activity shall not impede the passage of normal or expected high flows, and any associated structure shall withstand expected high flows.
- 5. Virginia Water Quality Standards shall not be violated in any surface waters as a result of the project activities.

- 6. All required notifications and submittals shall include project name and permit number and be submitted to the DEQ office stated below, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit: Department of Environmental Quality-Office of Water Supply, P.O. Box 1105, Richmond, Virginia 23218.
- 7. All reports required by this permit and other information requested by DEQ shall be signed by the permittee or a person acting in the permittee's behalf, with the authority to bind the permittee. A person is a duly authorized representative only if *both* criteria below are met. If a representative authorization is no longer valid because of a change in responsibility for the overall operation of the facility, a new authorization shall be immediately submitted to DEQ.
 - a. The authorization is made in writing by the permittee.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
- 8. All submittals shall contain the following signed certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- 9. Any fish kills or spills of fuels or oils shall be reported to DEQ immediately upon discovery at (804) 527-5020. If DEQ cannot be reached, the spill shall be reported to the Virginia Department of Emergency Management (DEM) at 1-800-468-8892 or the National Response Center (NRC) at 1-800-424-8802.
- 10. DEQ shall be notified in writing within 24 hours or as soon as possible on the next business day when potential environmentally threatening conditions are encountered which require debris removal or involve potentially toxic substances. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure are prohibited until approved by DEQ.

D. Surface Water Withdrawals and Chesdin Reservoir Flow Release Conditions

- 1. Surface water withdrawal from Chesdin Reservoir described in Part I.A.1 is authorized under this permit for public water supply.
- 2. The cumulative withdrawal of water from the two intakes on Chesdin Reservoir shall not exceed the following:

- a. A maximum daily withdrawal of 86.24 million gallons per day (mgd).
- b. A maximum monthly withdrawal of 2.289 billion gallons.
- c. A maximum annual withdrawal of 17.934 billion gallons.
- 3. The permittee shall estimate inflow in units of cubic feet per second (cfs) to the Chesdin Reservoir on a daily basis by monitoring the stream flow gages detailed herein and by applying the equation "Inflow = Qmo + Qdc * 2.475", where:
 - a. Qmo is the previous day's provisional mean daily flow at the United States Geologic Survey Appomattox River at Route 602 near Mannboro Gaging Station (No. 02040892);
 - b. Qdc is the previous day's provisional mean daily flow at the United States Geologic Survey Deep Creek near Mannboro Gaging Station (No. 02041000); and
 - c. 2.475 is the adjustment factor for drainage area.
- 4. The permittee shall provide releases from Chesdin Reservoir through the Brasfield Dam in accordance with the following. The releases shall include the volume of water discharged from the Water Treatment Plant and returned immediately below the Brasfield Dam:
 - a. Releases shall be provided in accordance with the following table until such time when the normal target pool elevation of the reservoir is increased above 158 feet above mean sea level (msl) NGVD29:

Inflow (cfs)	Outflow
≤60	100% of Inflow
$>60 \text{ and} \le 120$	90% of Inflow
$> 120 \text{ and } \le 200$	Lesser of 80% of Inflow or Q _{max} ¹
≥200	Lesser of 75% of Inflow or Q _{max} ¹

Notes:

1. Q_{max} shall be determined using the below chart and shall regulate releases for the rest of the year (March 2^{nd} through the following March 1^{st}):

Condition	Q _{max} Flow (cfs)		
Normal (non-drought) conditions or	250		
$Q_{JanFeb} \geq 1600$	230		
Drought Watch or	190		
$Q_{JanFeb} \ge 915$ and < 1600			
Drought Warning or Q _{JanFeb} < 915	140		

- b. Funding was appropriated by the 2013 General Assembly for expanding capacity at the Chesdin Reservoir. Should the Authority undertake a project under this appropriation, a major modification to this permit is required.
- 5. A Standard Operating Plan for determining inflows to the Chesdin Reservoir and releases from Brasfield Dam shall be submitted to DEQ for review and approval within 120 days of permit

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issuance. Any revisions to the approved plan shall be submitted to DEQ for review and approval prior to implementing the change. The plan shall be developed in coordination with DEQ and include, at a minimum, the following:

- a. Procedure proposed to calculate inflows in accordance with Part I.D.3, including the frequency and time of day when inflows will be calculated.
- b. Method to determine the Q_{max} flow identified in Part I.D.4.a using the procedure and equation provided by DEQ and as updated by DEQ during the permit period.
- c. Method to measure flow from the Brasfield Dam and the discharge from the Water Treatment Plant (WTP), including frequency and time of day each will be measured. The procedure should include an alternative method to use in situations when the primary method is not functioning.
- d. Calculation for determining the required flow release based upon the volumes from the cone valve release and discharge from the WTP.
- e. Procedure and frequency of adjusting the release from the cone valve to meet the required flow release volumes.
- 6. The permittee shall monitor withdrawals from Chesdin Reservoir on a daily basis using flow totalizer technology to confirm that the withdrawals are in compliance with this permit. Such meters shall produce volume determinations within plus or minus 10% of actual flows. A defective meter or other device must be repaired or replaced within 60 days. A defective meter is not grounds for not reporting the withdrawals. During any period when a meter is defective, generally accepted engineering practice shall be used to estimate withdrawals and the period during which the meter was defective must be clearly identified in the report.
- 7. The permittee shall submit a drought management plan to DEQ for review and approval within 180 days of permit issuance. Any revisions to the approved plan shall be submitted to DEQ for review and approval prior to implementing the change. The plan shall include, at a minimum, the following:
 - a. Development of drought stages consistent with the safe yield modeling evaluation. The water elevations of the Chesdin Reservoir at which each drought stage shall be initiated are as follows:

	Stage	1 – Drough	t Watch	Stage 2 – Drought Warning			Stage 3 – Drought Emergency		
Month	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)	Percent Usable Storage (%)	NAVD88 Elevation (ft msl)	NGVD29 Elevation (ft msl)
Full Pool	100	157.2	158	100	157.2	158	100	157.2	158
Jan	75	154	154.8	60	151.5	152.3	40	147.3	148.1
Feb	80	154.8	155.6	65	152.3	153.1	42.5	147.9	148.7
Mar	82.5	155.2	156	70	153.2	154	45	148.5	149.3
Apr	85	155.5	156.3	70	153.2	154	45	148.5	149.3
May	85	155.5	156.3	70	153.2	154	45	148.5	149.3
Jun	82.5	155.2	156	67.5	152.7	153.5	45	148.5	149.3
Jul	80	154.8	155.6	65	152.3	153.1	42.5	147.9	148.7
Aug	75	154	154.8	60	151.5	152.3	40	147.3	148.1
Sep	70	153.2	154	55	150.7	151.5	40	147.3	148.1
Oct	65	152.3	153.1	50	149.7	150.5	35	146	146.8
Nov	70	153.2	154	52.5	150.2	151	35	146	146.8
Dec	75	154	154.8	55	150.7	151.5	37.5	146.6	147.4

- b. Description of the conservation measures to be implemented during each drought stage.
- c. Procedure to assess vulnerability to drought conditions and adjust water usage to prolong available supply.
- d. Method to project water needs and available water supply for a 90 day period from the declaration of a Drought Emergency stage.
- 8. When a drought emergency is declared by the Commonwealth of Virginia in the Middle James Drought Evaluation Region of Amelia or Chesterfield Counties, or in Chowan Drought Evaluation Region of Dinwiddie County, or declared by either Amelia, Chesterfield or Dinwiddie Counties in accordance with the County's Drought Ordinance, the permittee shall implement either the provisions directed by the Commonwealth, the Drought Ordinance, or the mandatory conservation measures detailed in the drought management plan required by Part I.D.7 and Attachment A of this permit, whichever is most restrictive. The permittee shall be responsible for determining when drought emergencies are declared. The permittee shall retain records documenting that mandatory conservation measures were implemented during declared drought emergencies.
- 9. This project is allocated a maximum daily withdrawal of 96 mgd and a maximum annual withdrawal of 21.3 billion gallons, of which a portion is authorized to be withdrawn by this permit under Part I.D.2. The remaining portion of this allocation may be authorized for withdrawal by the permittee through the issuance, reissuance, or modification of a Virginia Water Protection permit.

E. Monitoring, Recordation and Reporting Conditions

- 1. On each day that pumping occurs at either intake location, the permittee must monitor and record the following for each intake:
 - a. Date and time;
 - b. Total amount of water withdrawal each day in mgd.
- 2. The permittee shall record daily the following information regarding the release from Chesdin Reservoir:
 - a. Date and time;
 - b. The previous day's estimated inflow to the Chesdin Reservoir in cfs as estimated in Part I.D.3;
 - c. The required flow release in cfs; and
 - d. The release from Brasfield Dam, discharge from WTP and the combined calculated flow release in cfs; and
 - e. Lake level.
- 3. The permittee shall submit a surface water withdrawal monitoring report to DEQ semi-annually. The semi-annual monitoring period shall be as follows: January through June and July through December. The daily records shall be tabulated by month. The report shall be submitted within thirty (30 days) following each semi-annual monitoring period via the Virginia Water Withdrawal Reporting System. In the event that the system is not available, the permittee shall submit the report by electronic mail. The report shall include the following information:
 - a. The permittee's name and address;
 - b. The permit number;
 - c. The source(s) from which water is withdrawn;
 - d. The location (latitude and longitude) of each point of water withdrawal;
 - e. Information listed in Part I.E.1 and 2;
 - f. The cumulative volume (million gallons) of water withdrawn each month and for the calendar year;
 - g. The average daily volume (mgd) of water withdrawn as calculated the last day of the monitoring period;

- h. In the last report for the calendar year, the largest single day withdrawal volume (million gallons) that occurred in the year and the month in which it occurred;
- i. The method of measuring each withdrawal;
- j. A summary of the dates on which the flow release from Chesdin Reservoir did not meet required volumes per Part I.D.4; and
- k. If during a semi-annual reporting period a drought emergency is declared, the report shall include a summary of mandatory conservation measures implemented during the drought event.
- 4. The permittee shall develop a Storage Management Plan for the Chesdin Reservoir for maintaining the storage volume during the permit term (the "Plan"). The Plan shall be submitted to DEQ for review and approval within four (4) years of permit issuance. Development of the plan shall be coordinated with DEQ. The Plan shall include, at a minimum, the following:
 - a. Stakeholder participation in the development of the Plan. The Plan shall include documentation of stakeholder involvement.
 - b. A description and analysis of the storage management alternatives considered in developing the Plan, including, at a minimum, raising the height of the Brasfield Dam, dredging, and offstream storage. The Plan shall acknowledge that any proposed dredging activity will require environmental permits from both state and federal agencies.
 - c. An analysis of the main sources of sedimentation to the reservoir from sources in Chesterfield and Dinwiddie Counties. This analysis should include sedimentation from instream as well as offstream sources and those actions proposed to manage these sources of sediment. This analysis shall be updated when a bathymetric survey is conducted.
 - d. Schedule for conducting a bathymetric survey of the reservoir to provide an updated analysis of sedimentation in the reservoir, including identification of areas of accumulated sediment and areas having a high potential for accumulation during the permit term. The survey shall be conducted at least once during the permit term but no later than year 10.
 - e. The permittee shall submit a report to DEQ documenting progress towards procurement of a preferred alternative for a future alternative source of supply every two (2) years, with the first report due two (2) years after permit issuance. The reports shall document actions taken to secure additional raw water supply by the end of the permit term, including a proposed timeline with implementation milestones. The reports shall include any applicable documentation of stakeholder involvement.
- 5. The permittee shall obtain all the necessary environmental permits and approvals from DEQ, the U.S. Army Corps of Engineers and any other agencies and/or localities prior to implementing an increase in the normal target pool elevation (158 feet above msl NGVD29 at the time of permit issuance) of the Chesdin Reservoir. An increase in the water elevation of the reservoir will require

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authorization under a modification of this VWP permit and compensation to mitigate surface waters inundated by the increase in lake level.

6. Water withdrawal monitoring and reporting activities shall comply with this section, Part I.C, and Part II. All records and information that result from the monitoring and reporting activities required by this permit, including any records of maintenance activities to the withdrawal system, shall be retained for the life of the permit. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or as requested by the State Water Control Board.

Part II – General Conditions

A. Duty to Comply

The permittee shall comply with all conditions of the VWP permit. Nothing in the VWP permit regulations shall be construed to relieve the permittee of the duty to comply with all applicable federal and state statutes, regulations and prohibitions. Any VWP permit violation is a violation of the law, and is grounds for enforcement action, VWP permit termination, revocation, modification, or denial of an application for a VWP permit extension or reissuance.

B. Duty to Cease or Confine Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the activity for which a VWP permit has been granted in order to maintain compliance with the conditions of the VWP permit.

C. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any impacts in violation of the permit which may have a reasonable likelihood of adversely affecting human health or the environment.

D. VWP Permit Action

- 1. A VWP permit may be modified, revoked and reissued, or terminated as set forth in 9 VAC 25-210 et seq.
- 2. If a permittee files a request for VWP permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the VWP permit terms and conditions shall remain effective until the request is acted upon by the board. This provision shall not be used to extend the expiration date of the effective VWP permit. If the permittee wishes to continue an activity regulated by the VWP permit after the expiration date of the VWP permit, the permittee must apply for and obtain a new VWP permit or comply with the provisions of 9 VAC 25-210-185 (VWP Permit Extension).

VWP permits may be modified, revoked and reissued or terminated upon the request of the permittee or other person at the board's discretion, or upon board initiative to reflect the requirements of any changes in the statutes or regulations, or as a result of VWP permit noncompliance as indicated in the Duty to Comply subsection above, or for other reasons listed in 9 VAC 25-210-180 (Rules for Modification, Revocation and Reissuance, and Termination of VWP permits).

E. Inspection and Entry

Upon presentation of credentials, any duly authorized agent of the board may, at reasonable times and under reasonable circumstances:

- 1. Enter upon any permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the VWP permit conditions;
- 2. Inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the VWP permit; and
- 3. Sample or monitor any substance, parameter or activity for the purpose of ensuring compliance with the conditions of the VWP permit or as otherwise authorized by law.

F. Duty to Provide Information

- 1. The permittee shall furnish to the board any information which the board may request to determine whether cause exists for modifying, revoking, reissuing or terminating the VWP permit, or to determine compliance with the VWP permit. The permittee shall also furnish to the board, upon request, copies of records required to be kept by the permittee.
- 2. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as required by the board prior to commencing construction.

G. Monitoring and Records Requirements

- 1. Monitoring of parameters, other than pollutants, shall be conducted according to approved analytical methods as specified in the VWP permit. Analysis of pollutants will be conducted according to 40 CFR Part 136 (2000), Guidelines Establishing Test Procedures for the Analysis of Pollutants.
- 2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart or electronic recordings for continuous monitoring instrumentation, copies of all reports required by the VWP permit, and records of all data used to complete the application for the VWP permit, for a period of at least three years from the date of the expiration of a granted VWP permit. This period may be extended by request of the board at any time.
- 4. Records of monitoring information shall include:
 - a. The date, exact place and time of sampling or measurements;
 - b. The name of the individuals who performed the sampling or measurements;
 - c. The date and time the analyses were performed;

- d. The name of the individuals who performed the analyses;
- e. The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used;
- f. The results of such analyses; and
- g. Chain of custody documentation.

H. Transferability

This VWP permit may be transferred to a new permittee only by modification to reflect the transfer, by revoking and reissuing the permit, or by automatic transfer. Automatic transfer to a new permittee shall occur if:

- 1. The current permittee notifies the board within 30 days of the proposed transfer of the title to the facility or property;
- 2. The notice to the board includes a written agreement between the existing and proposed permittee containing a specific date of transfer of VWP permit responsibility, coverage and liability to the new permittee, or that the existing permittee will retain such responsibility, coverage, or liability, including liability for compliance with the requirements of any enforcement activities related to the permitted activity; and
- 3. The board does not within the 30-day time period notify the existing permittee and the new permittee of its intent to modify or revoke and reissue the VWP permit.

I. Property rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize injury to private property or any invasion of personal rights or any infringement of federal, state or local law or regulation.

J. Reopener

Each VWP permit shall have a condition allowing the reopening of the VWP permit for the purpose of modifying the conditions of the VWP permit to meet new regulatory standards duly adopted by the board. Cause for reopening VWP permits includes, but is not limited to when the circumstances on which the previous VWP permit was based have materially and substantially changed, or special studies conducted by the board or the permittee show material and substantial change, since the time the VWP permit was issued and thereby constitute cause for VWP permit modification or revocation and reissuance.

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K. Compliance with State and Federal Law

Compliance with this VWP permit constitutes compliance with the VWP permit requirements of the State Water Control Law. Nothing in this VWP permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other state law or regulation or under the authority preserved by § 510 of the Clean Water Act.

L. Severability

The provisions of this VWP permit are severable.

M. Permit Modification

A VWP permit may be modified, but not revoked and reissued except when the permittee agrees or requests, when any of the following developments occur:

- 1. When additions or alterations have been made to the affected facility or activity which require the application of VWP permit conditions that differ from those of the existing VWP permit or are absent from it;
- 2. When new information becomes available about the operation or activity covered by the VWP permit which was not available at VWP permit issuance and would have justified the application of different VWP permit conditions at the time of VWP permit issuance;
- 3. When a change is made in the promulgated standards or regulations on which the VWP permit was based:
- 4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Act;
- 5. When changes occur which are subject to "reopener clauses" in the VWP permit; or
- 6. When the board determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use and the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to §§ 62.1-242 through 62.1-253 of the Code of Virginia, during the term of the VWP permit.

N. Permit Termination

After notice and opportunity for a formal hearing pursuant to Procedural Rule No. 1 (9 VAC 25-230-100) a VWP permit can be terminated for cause. Causes for termination are as follows:

- 1. Noncompliance by the permittee with any condition of the VWP permit;
- 2. The permittee's failure in the application or during the VWP permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
- 3. The permittee's violation of a special or judicial order;
- 4. A determination by the board that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by VWP permit modification or termination:
- 5. A change in any condition that requires either a temporary or permanent reduction or elimination of any activity controlled by the VWP permit; and
- 6. A determination that the permitted activity has ceased and that the compensatory mitigation for unavoidable adverse impacts has been successfully completed.

O. Civil and Criminal Liability

Nothing in this VWP permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this VWP permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under § 311 of the Clean Water Act or §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Unauthorized Discharge of Pollutants

Except in compliance with this VWP permit, it shall be unlawful for the permittee to:

- 1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances;
- 2. Excavate in a wetland:
- 3. Otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses;
- 4. On or after October 1, 2001 conduct the following activities in a wetland:

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- a. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions;
- b. Filling or dumping;
- c. Permanent flooding or impounding;
- d. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

R. Permit Extension

Any permittee with an effective VWP permit for an activity that is expected to continue after the expiration date of the VWP permit, without any change in the activity authorized by the VWP permit, shall submit written notification requesting an extension. The permittee must file the request prior to the expiration date of the VWP permit. Under no circumstances will the extension be granted for more than 15 years beyond the original effective date of the VWP permit. If the request for extension is denied, the VWP permit will still expire on its original date and, therefore, care should be taken to allow for sufficient time for the board to evaluate the extension request and to process a full VWP permit modification, if required.

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Attachment A - Water Conservation

Mandatory Non-essential Water Use Restrictions

The following non-essential water uses will be prohibited during periods of declared drought emergencies. Please note the exceptions that follow each prohibited use. These prohibitions and exceptions will apply to uses from all sources of water and will only be effective when the Governor of Virginia or the Virginia Drought Coordinator declares a Drought Emergency. Water use restrictions shall not apply to the agricultural production of food or fiber, the maintenance of livestock including poultry, nor the commercial production of plant materials, *provided that best management practices are applied to assure the minimum amount of water is utilized*.

1. Unrestricted irrigation of lawns is prohibited.

- Newly sodded and seeded areas may be irrigated to establish cover on bare ground at the minimum rate necessary for no more than a period of 60 days. Irrigation rates may not exceed one inch of applied water in any 7-day period.
- Gardens, bedding plants, trees, shrubs and other landscape materials may be watered with hand held containers, hand held hoses equipped with an automatic shutoff device, sprinklers or other automated watering devices at the minimum rate necessary but in no case more frequently than twice per week. Irrigation should not occur during the heat of the day.
- All allowed lawn irrigation must be applied in a manner to assure that no runoff, puddling or excessive watering occurs.
- Irrigation systems may be tested after installation, routine maintenance or repair for no more than ten minutes per zone.

2. Unrestricted irrigation of golf courses is prohibited.

- Tees and greens may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. at the minimum rate necessary.
- Localized dry areas may be irrigated with a hand held container or hand held hose equipped with an automatic shutoff device at the minimum rate necessary.
- Greens may be cooled by syringing or by the application of water with a hand held hose equipped with an automatic shutoff device at the minimum rate necessary.
- Fairways may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. at the minimum rate necessary not to exceed one inch of applied water in any ten-day period.

- Fairways, tees and greens may be irrigated during necessary overseeding or resodding operations in September and October at the minimum rate necessary. Irrigation rates during this restoration period may not exceed one inch of applied water in any seven-day period.
- Newly constructed fairways, tees and greens and areas that are re-established by sprigging or sodding may be irrigated at the minimum rate necessary not to exceed one inch of applied water in any seven-day period for a total period that does not exceed 60 days.
- Fairways, tees and greens may be irrigated without regard to the restrictions listed above so long as:
 - The only water sources utilized are water features whose primary purpose is stormwater management;
 - o Any water features utilized do not impound permanent streams;
 - During declared Drought Emergencies these water features receive no recharge from other water sources such as ground water wells, surface water intakes, or sources of public water supply; and,
 - o All irrigation occurs between 9:00 p.m. and 10:00 a.m.
- All allowed golf course irrigation must be applied in a manner to assure that no runoff, puddling or excessive watering occurs.
- Rough areas may not be irrigated.

3. Unrestricted irrigation of athletic fields is prohibited.

- Athletic fields may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. at a rate not to exceed one inch per application or more than a total of one inch in multiple applications during any ten-day period. All irrigation water must fall on playing surfaces with no outlying areas receiving irrigation water directly from irrigation heads.
- Localized dry areas that show signs of drought stress and wilt (curled leaves, foot-printing, purpling) may be syringed by the application of water for a cumulative time not to exceed fifteen minutes during any twenty four hour period. Syringing may be accomplished with an automated irrigation system or with a hand held hose equipped with an automatic shutoff device at the minimum rate necessary.
- Athletic fields may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. during necessary overseeding, sprigging or resodding operations at the minimum rate necessary for a period that does not exceed 60 days. Irrigation rates during this restoration period may not exceed one inch of applied water in any seven-day period. Syringing is permitted during signs of drought stress and wilt (curled leaves, foot-printing, purpling).

- All allowed athletic field irrigation must be applied in a manner to assure that no runoff, puddling or excessive watering occurs.
- Irrigation is prohibited on athletic fields that are not scheduled for use within the next 120-day period.
- Water may be used for the daily maintenance of pitching mounds, home plate areas and base areas with the use of hand held containers or hand held hoses equipped with an automatic shutoff device at the minimum rate necessary.
- Skinned infield areas may utilize water to control dust and improve playing surface conditions utilizing hand held containers or hand held hoses equipped with an automatic shutoff device at the minimum rate necessary no earlier than two hours prior to official game time.
- 4. Washing paved surfaces such as streets, roads, sidewalks, driveways, garages, parking areas, tennis courts, and patios is prohibited.
 - Driveways and roadways may be pre-washed in preparation for recoating and sealing.
 - Tennis courts composed of clay or similar materials may be wetted by means of a hand-held hose equipped with an automatic shutoff device at the minimum rate necessary for maintenance.
 Automatic wetting systems may be used between the hours of 9:00 p.m. and 10:00 a.m. at the minimum rate necessary.
 - Public eating and drinking areas may be washed using the minimum amount of water required to assure sanitation and public health.
 - Water may be used at the minimum rate necessary to maintain effective dust control during the construction of highways and roads.
- 5. Use of water for washing or cleaning of mobile equipment including automobiles, trucks, trailers and boats is prohibited.
 - Mobile equipment may be washed using hand held containers or hand held hoses equipped with automatic shutoff devices provided that no mobile equipment is washed more than once per calendar month and the minimum amount of water is utilized.
 - Construction, emergency or public transportation vehicles may be washed as necessary to preserve the proper functioning and safe operation of the vehicle.
 - Mobile equipment may be washed at car washes that utilize reclaimed water as part of the wash process or reduce water consumption by at least 10% when compared to a similar period when water use restrictions were not in effect.

- Automobile dealers may wash cars that are in inventory no more than once per week utilizing
 hand held containers and hoses equipped with automatic shutoff devices, automated equipment
 that utilizes reclaimed water as part of the wash process, or automated equipment where water
 consumption is reduced by at least 10% when compared to a similar period when water use
 restrictions were not in effect.
- Automobile rental agencies may wash cars no more than once per week utilizing hand held
 containers and hoses equipped with automatic shutoff devices, automated equipment that utilizes
 reclaimed water as part of the wash process, or automated equipment where water consumption is
 reduced by at least 10% when compared to a similar period when water use restrictions were not
 in effect.
- Marine engines may be flushed with water for a period that does not exceed 5 minutes after each
 use.
- 6. Use of water for the operation of ornamental fountains, artificial waterfalls, misting machines, and reflecting pools is prohibited.
 - Fountains and other means of aeration necessary to support aquatic life are permitted.
- 7. Use of water to fill and top off outdoor swimming pools is prohibited.
 - Newly built or repaired pools may be filled to protect their structural integrity.
 - Outdoor pools operated by commercial ventures, community associations, recreation associations, and similar institutions open to the public may be refilled as long as:
 - o Levels are maintained at mid-skimmer depth or lower;
 - o Any visible leaks are immediately repaired;
 - o Backwashing occurs only when necessary to assure proper filter operation;
 - O Deck areas are washed no more than once per calendar month (except where chemical spills or other health hazards occur);
 - o All water features (other than slides) that increase losses due to evaporation are eliminated; and
 - o Slides are turned off when the pool is not in operation.
 - Swimming pools operated by health care facilities used in relation to patient care and rehabilitation may be filled or topped off.
 - Indoor pools may be filled or topped off.

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- Residential swimming pools may be filled only to protect structural integrity, public welfare, safety and health and may not be filled to allow the continued operation of such pools.
- 8. Water may be served in restaurants, clubs, or eating-places only at the request of customers.